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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,901	01/24/2006	Peter Herring	DEHN-01005US0	7477
28554 7590 09/11/2009 Vierra Magen Marcus & DeNiro LLP 575 Market Street, Suite 2500 San Francisco, CA 94105				
EXAMINER				
LIU, XUE H				
ART UNIT		PAPER NUMBER		
1791				
MAIL DATE		DELIVERY MODE		
09/11/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/565,901

Applicant(s)

HERRING, PETER

Examiner

XUE LIU

Art Unit

1791

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 June 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 50-55, 57-84 and 86-98 is/are pending in the application.
- 4a) Of the above claim(s) 86-98 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 50-55 and 57-84 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 June 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. Amendment to the claims filed 6/4/08 is acknowledged. Currently, claims 50-55, 57-84 and 86-98 are pending. Claims 1-49, 56 and 85 have been cancelled. Claims 50 and 80 are currently amended. Claims 86-98 are withdrawn from consideration.

Drawings

2. The drawings were received on 6/4/09. These drawings are acceptable.

3. Previous objection to the drawings is withdrawn in view of submission of replacement drawing sheets.

Claim Rejections - 35 USC § 112

4. Rejection of claim 80 under 112th 2nd paragraph in the previous office action is withdrawn in view of amendment to the claim.

Claim Rejections - 35 USC § 102

5. Rejection of claim 85 under 35 USC § 102 in the previous office action is withdrawn in view of cancellation of the claim.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 50-51, 57, 61, 71-79 and 81-84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Easterlow et al. (US 5,562,979) in view of Chu et al. (US 5,942,324).

Regarding claim 50, Easterlow et al. teach a method of forming a molding 11 by multiple injection molding, said method comprising: injecting a first material 23a into a mold 10; injecting a second material 24a into said mold behind said first material so that said first material covers a surface 14a of said mold, wherein the first material includes metallic or mineral flakes

40. Easterflow et al teach that the process can be used to produce by injection molding various body components of a motor vehicle having a paint finish provided by the coating material 23 (abstract, figs. 1-9, col. 1, lines 14-19, col. 3, lines 59-67 to col. 4, lines 1-6, col. 5, lines 5-17, 28-33 and 64-67). Easterflow et al. do not positively teach that the metallic or mineral flakes

include magnetic particles. However, it would have been obvious to one of ordinary skill in the art that both ferromagnetic metals or minerals and non-ferromagnetic metals or minerals can be added to the coating material since both ferromagnetic and non-ferromagnetic metals can be used to add a metallic finish to the coating. Easterflow do not teach applying one or more magnetic fields to at least a portion of at least one of said materials so as to change the orientation and/or distribution of magnetic particles in at least one of said materials. However, Chu et al. teach a coated exterior mirror housing for vehicles. Chu et al. teach that a plurality of particles or flakes of metal, mica or the like may be included in the coating; if made from a ferromagnetic metal, those particles may be oriented in a desired array using magnetic force prior to final set up or cure of the coating. Chu et al. further teach that the resinous polymeric materials from which housing is formed may also include particles or flakes of metal or mica as described above (col. 3, lines 19-29 and col. 8, lines 7-19). Chu et al. also teaches that the magnetic field changes the orientation and/or distribution of all of said magnetic particles in order to give a desired visual effect in the coating layer of the molding (col. 8, lines 7-14). It would have been obvious to one of ordinary skill in the art to provide ferromagnetic metal particles in the coating material as taught by Chu et al. in the injection molding method of Easterflow et al. since Chu et al. teach that the magnetic particles can be oriented uniformly within the coating by a magnetic force to thereby enhance the appearance and metallic effect from the particles (col. 8, lines 7-14).

Regarding claim 51, Easterflow et al. teach that the second material is injected into the mold before said first material has cured completely (col. 3, lines 59-67 to col. 4, lines 36).

Regarding claim 57, Chu et al. teach that the magnetic fields orientate and/or distribute the magnetic particles substantially uniformly (col. 8, lines 7-14).

Regarding claim 61, Chu et al. teach that the particles are oriented in a desired array using magnetic force prior to final set up or cure of the coating layer (col. 3, lines 26-29 and col. 8, lines 7-11).

Regarding claim 71, Easterflow et al. teach that the metallic or mineral particles 40 have an elongated, non-spherical shape (see fig. 7).

Regarding claims 72-79, Chu et al. do not positively teach that the magnetic particles comprise about 2% of the weight of at least one of said materials. However, it would have been obvious to one of ordinary skill in the art to use a small amount of magnetic particles in the molding materials since increasing the amount of magnetic particles in the molding materials increases the composition viscosity, reduces the fluidity, making the molding difficult and bubble inclusion inevitable so it is not appropriate. Additionally, it would have been obvious to vary the amount of metal particles to obtain the desired appearance and color of the molded part.

Regarding claims 81-82, Easterflow et al. teach that the coating material is injected into the mold while the mold is at a temperate in a range of 20°C to 100°C (col. 3, lines 59-61).

Regarding claim 83, Easterflow et al. teach that the molding is partially cured in the mold and is heated until completely cured after removal from the mold (col. 4, lines 25-27, col. 4, lines 64-67).

Regarding claim 84, while the combined teachings of Easterflow et al. and Chu et al. do not positively suggest applying one or more further magnetic fields to the molding after it has been removed from the mold, it would have been obvious to one of ordinary skill in the art to do so to modify the orientation of the magnetic particles since they can still be oriented by a

magnetic field while the molding is not completely cured to obtain the desired appearance or color of the molded part.

3. Claims 52-55 and 80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Easterflow in view of Chu et al. as applied to claim 50 above, and further in view of Spain et al. (US 6,579,397).

Regarding claim 52, Easterflow et al. do not teach injecting at least a third material into said mold after said second material is injected. However, Spain et al. teach a paint coat 44 for the exterior surface of a molded plastic car body member or panel 118 which includes an exterior clear coat 45 above a color coat 46 (abstract, fig. 4 and col. 8, lines 25-55). It would have been obvious to one of ordinary skill in the art to inject a third material into the mold after the second material is injected into the mold in the injection molding process of Easterflow et al. in order to mold a coating layer with multiple layers as taught by Spain et al. since Spain et al. teach that it's advantageous to provide a clear coat layer as the clear coat layer can provide the majority of the durability, gloss, and other appearance properties necessary for use as an exterior automotive paint coat (col. 5, lines 46-57).

Regarding claim 53, since Easterflow et al. teach that the second material is injected into the mold before said first material has cured completely to ensure good bonding between the two layers (col. 3, lines 59-67 to col. 4, lines 1-24), therefore it would have been obvious to one of ordinary skill in the art to inject the third material into the mold before said second material has cured completely to ensure good bonding of the second material and the third material in view of the teaching of Easterflow et al.

Regarding claim 54, as stated above in paragraph 9 regarding claim 50, the combined teachings of Easterflow et al. and Chu et al. teach that the first material comprises magnetic particles.

Regarding claim 55, Easterflow et al. do not teach that the first and/or second and/or third material is substantially translucent or transparent. However, Chu et al. teach that the coating material is generally transparent (abstract, col. 2, lines 25-32 and 50-55, col. 5, lines 46-57, col. 8, lines 20-31). It would have been obvious to one of ordinary skill in the art to provide the teaching of Chu in the injection molding process of Easterflow et al. since Chu et al. teach that the transparent coating increases gloss and depth of color in appearance (col. 2, lines 25-32, col. 5, lines 46-57).

Regarding claim 80, since the third material that forms the clear coat layer as taught by Spain et al. does not contain any magnetic particles, the third material and the first or second materials clearly comprise different weight percentages of magnetic particles.

4. Claims 50-51, 57, 61, 71-79 and 81-84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Easterflow et al. in view of Chu et al. and Kashiwagi et al. (EP 0556449).

Regarding claim 50, Easterflow et al. teach a method of forming a molding 11 by multiple injection molding, said method comprising: injecting a first material 23a into a mold 10; injecting a second material 24a into said mold behind said first material so that said first material covers a surface 14a of said mold, wherein the first material includes metallic or mineral flakes 40. Easterflow et al teach that the process can be used to produce by injection molding various body components of a motor vehicle having a paint finish provided by the coating material 23

(abstract, figs. 1-9, col. 1, lines 14-19, col. 3, lines 59-67 to col. 4, lines 1-6, col. 5, lines 5-17, 28-33 and 64-67). Easterflow et al. do not positively teach that the metallic or mineral flakes include magnetic particles. However, it would have been obvious to one of ordinary skill in the art that both ferromagnetic metals or minerals and non-ferromagnetic metals or minerals can be added to the coating material since both ferromagnetic and non-ferromagnetic metals can be used to add a metallic finish to the coating. Easterflow do not teach applying one or more magnetic fields to at least a portion of at least one of said materials so as to change the orientation and/or distribution of magnetic particles in at least one of said materials. However, Chu et al. teach a coated exterior mirror housing for vehicles. Chu et al. teach that a plurality of particles or flakes of metal, mica or the like may be included in the coating; if made from a ferromagnetic metal, those particles may be oriented in a desired array using magnetic force prior to final set up or cure of the coating. Chu et al. further teach that the resinous polymeric materials from which housing is formed may also include particles or flakes of metal or mica as described above (col. 3, lines 19-29 and col. 8, lines 7-19). Chu et al. also teaches that the magnetic field changes the orientation and/or distribution of all of said magnetic particles in order to give a desired visual effect in the coating layer of the molding (col. 8, lines 7-14). It would have been obvious to one of ordinary skill in the art to provide ferromagnetic metal particles in the coating material as taught by Chu et al. in the injection molding method of Easterflow et al. since Chu et al. teach that the magnetic particles can be oriented uniformly within the coating by a magnetic force to thereby enhance the appearance and metallic effect from the particles (col. 8, lines 7-14). While Chu et al. teach changing the orientation and/or distribution of all of the magnetic particles in order to give a desired visual effect in the coating layer of the molding, Kashiwagi et al. teach a

method for making a painted product with magnetically formed pattern by using a paint medium containing magnetic bodies which are oriented by a magnetic force to form the desired pattern to be formed on the painted product (page 2, lines 5-10, page 3, lines 14-28, page 13, lines 37-41 and claim 12). It would have been obvious to incorporate the teaching of Kashiwagi et al. in the injection molding method of Easterflow et al. and Chu et al. since it would be desirable to form patterns on a vehicle body to enhance the aesthetic appearance of the product.

Regarding claim 51, Easterflow et al. teach that the second material is injected into the mold before said first material has cured completely (col. 3, lines 59-67 to col. 4, lines 36).

Regarding claim 57, Chu et al. teach that the magnetic fields orientate and/or distribute the magnetic particles substantially uniformly (col. 8, lines 7-14).

Regarding claim 61, Chu et al. teach that the particles are oriented in a desired array using magnetic force prior to final set up or cure of the coating layer (col. 3, lines 26-29 and col. 8, lines 7-11).

Regarding claim 71, Easterflow et al. teach that the metallic or mineral particles 40 have an elongated, non-spherical shape (see fig. 7). Kashiwagi et al. also teach that the magnetic particles are non-spherical shape (page 3, lines 1-28 and claim 12).

Regarding claims 72-79, Chu et al. do not positively teach that the magnetic particles comprise about 2% of the weight of at least one of said materials. However, it would have been obvious to one of ordinary skill in the art to use a small amount of magnetic particles in the molding materials since increasing the amount of magnetic particles in the molding materials increases the composition viscosity, reduces the fluidity, making the molding difficult and

bubble inclusion inevitable so it is not appropriate. Additionally, it would have been obvious to vary the amount of metal particles to obtain the desired appearance and color of the molded part.

Regarding claims 81-82, Easterflow et al. teach that the coating material is injected into the mold while the mold is at a temperature in a range of 20°C to 100°C (col. 3, lines 59-61).

Regarding claim 83, Easterflow et al. teach that the molding is partially cured in the mold and is heated until completely cured after removal from the mold (col. 4, lines 25-27, col. 4, lines 64-67).

Regarding claim 84, while the combined teachings of Easterflow et al. and Chu et al. do not positively suggest applying one or more further magnetic fields to the molding after it has been removed from the mold, it would have been obvious to one of ordinary skill in the art to do so to modify the orientation of the magnetic particles since they can still be oriented by a magnetic field while the molding is not completely cured to obtain the desired appearance or color of the molded part.

5. Claims 58-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Easterflow et al. in view of Chu et al. as applied to claim 50 above, and further in view of Jarrard (US 6,106,759).

Regarding claim 58, Chu et al. do not teach that the strength of said magnetic fields is varied with time. However, Jarrard teaches controlling the orientation of magnetic particles during injection molding by imparting a variable magnetic field strength in the mold cavity (abstract, col. 1, lines 14-31, col. 3, lines 19-36). Therefore it would have been obvious to one of ordinary skill in the art to incorporate the teaching of Jarrard in the injection molding method of

Easterflow et al. since Jarrad teaches that varying the strength of the magnetic field controls the orientation of the magnetic particles.

Regarding claim 59, Jarrad teaches using an electromagnet to orient the magnetic particles (col. 1, lines 14-31, col. 3, lines 7-36). Jarrad does not teach the strength of the magnetic fields is varied by varying the power delivered to the electromagnet with time. However, it would have been obvious to one of ordinary skill in the art to vary the power delivered to the electromagnet with time since it would achieve the desired effect of modifying the strength of the magnet field.

6. Claim 60 is rejected under 35 U.S.C. 103(a) as being unpatentable over Easterflow et al. in view of Chu et al. as applied to claim 50 above, and further in view of Wagner et al. (US 6,000,922).

Regarding claim 60, Easterflow et al. and Chu et al. do not teach that the strength and/or location of said magnetic fields is varied with time by moving one or more permanent magnets or electromagnets relative to said mold. However, Wagner et al. teach adjustably moving a permanent magnet relative to a mold to efficiently adjust the magnetizing position of the permanent magnet for inducing relatively precise magnetic development fields in a molding material molded within the molding cavity (abstract, col. 4, lines 1-15, col. 7, lines 36-53 and col. 9, lines 21-24). Therefore it would have been obvious to one of ordinary skill in the art to provide the teaching of Wagner et al. in the injection molding method of Easterflow et al. and Chu et al. to induce precise magnetic field in the molding material as taught by Wagner et al.

7. Claims 62-66 and 68-69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Easterflow et al. in view of Chu et al. as applied to claim 50 above, and further in view of Phillips et al. (WO2002/090002).

Regarding claim 62, Chu et al. do not positively teach that the magnetic particles comprise nickel. However, Phillips et al. teach a method for producing imaged coated articles by applying a magnetic field to magnetic pigments to alter the orientation of selected magnetic particles. Phillips et al. teach that the magnetic particles can be formed of any magnetic material such as nickel (see abstract, page 13, lines 19-21). Therefore it would have been obvious to one of ordinary skill in the art to use nickel as the magnetic particles since Phillips et al. teach that nickel is a suitable material that can be oriented by a magnetic field.

Regarding claim 63, Phillips et al. do not positively teach using leafing grade nickel flakes. However, it would have been obvious to one of ordinary skill in the art to use leafing grade nickel flakes so that these particles will be visible in the outside surface to enhance the appearance and metallic effect of the coating layer in the inventions of Easterflow et al. and Chu et al.

Regarding claim 64, Phillips et al. teach that the magnetic particles comprise a core and an outer coating (page 13, lines 3-18).

Regarding claim 65, Phillips et al. teach that the core is a magnetic material (page 13, lines 3-18).

Regarding claim 66, Phillips et al. teach that the coating is aluminum (page 13, lines 3-14).

Regarding claim 68-69, Phillips et al. teach that the magnetic particles may be selected for its reflecting or absorbing properties (page 13, lines 31-32).

8. Claim 67 is rejected under 35 U.S.C. 103(a) as being unpatentable over Easterflow et al. in view of Chu et al. and Phillips et al. as applied to claim 64 above, and further in view of Kiichi (English abstract of JP 01-259916).

Regarding claim 67, Phillips et al. do not teach that the coating is colored. However, Kiichi teaches a coloring material 1 for molding is constituted of a magnetizing material 2, around which a coloring pigment 3 is coated and integrated thereon (see figs. 1-2 and English abstract). It would have been obvious to one of ordinary skill in the art to incorporate Kiichi's teaching in the combined teaching of Easterflow et al., Chu et al. and Phillips et al. to further enhance the appearance of the coating layer.

9. Claim 70 is rejected under 35 U.S.C. 103(a) as being unpatentable over Easterflow et al. in view of Chu et al. as applied to claim 50 above, and further in view of Blume (2003/0189475).

Regarding claim 70, Chu et al. do not positively teach that the magnetic particles are substantially spherical. However, Blume teaches that due to the regular, spherical shaped of magnetic particles, the particles are coated more effectively than the irregular crushed ribbon particles and further teaches that spheres do not have a tendency to fracture (paragraph 13). It would have been obvious to one of ordinary skill in the art to use spherical magnetic particles in the coating layers of Easterflow et al. and Chu et al. since Blume teaches the benefits of using spherical particles.

Response to Arguments

10. Applicant's arguments filed 6/4/09 have been fully considered but they are not persuasive. In response to applicant's argument that the Chu reference is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). The applicant argues that it would have been obvious to one of ordinary skill to combine Chu and Easterlow since Chu is directed to a spray coating process while Easterlow is directed to a dual injection process. In this case, the teaching of Chu et al. regarding application of magnetic field to orient magnetic particles is specifically directed to the coating layer which is formed by spray painting. However, Chu et al. teaches that the housing which is injection molded may itself include particles or flakes of metal or mica for enhanced metallic effect (see col. 2, ll. 63 to col. 3, ll. 1 and col. 8, ll. 14-17). One of ordinary skill in the art would have found it obvious to apply the teaching of Chu et al. regarding application of magnetic field to orient magnetic particles in the coating layer in the molding process of the housing by applying magnetic field to orient magnetic particles in the injection molded housing since both the coating layer and the housing contains magnetic particles and Chu et al. teaches applying magnetic field to the molding material which forms both the coating and housing orients the particles uniformly to enhance the appearance and metallic effect from the particles (see col. 8, ll. 7-19). In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by

Art Unit: 1791

combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, applicant argues that it would not have been obvious to one of ordinary skill to combine Chu and Easterlow since the metallic flakes are already oriented parallel to the exterior surface of the molding in Easterlow such that it is unnecessary to further orient the magnetic flakes by using the magnetic filed disclosed in Chu. However, Easterlow et al. teaches that the flakes 40 is generally in a plane parallel with the flow or spread direction indicated by arrow F and generally parallel with the plane of the coating formed by the coating material 23 (see col. 5, ll. 8-14). Therefore the orientation of the flakes 40 depends on the flow lines of the coating material, which may not always result in uniform orientation of the flakes depending on the shape of the molded product (which may be irregular shaped).

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to XUE LIU whose telephone number is (571)270-5522. The examiner can normally be reached on Monday to Friday 9:30 - 6:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Katarzyna Wyrozebski can be reached on (571)272-1127. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KAT WYROZEBSKI/

Art Unit: 1791

Supervisory Patent Examiner,
Art Unit 1791

/X. L./

Examiner, Art Unit 1791